



PATENT SPECIFICATION

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COMPLETE SPECIFICATION.

EXAMINER'S
COPY

Div. 7
414,220

Improvements in Backgrounds for Illuminated Objects.

I, LOUIS HENRI EMILE GROBETY, of 1, rue Descartes, Asnières, Seine, France, a citizen of the French Republic, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

It is important, when it is desired to render objects, inscriptions or the like illuminated by artificial light perfectly visible at night time, to show them on a darker background which makes them stand out better.

But the luminous rays coming from lighting sources cannot in practice be directed solely on the surface of the object to be thrown into relief; such rays also reach the backgrounds and being reflected on them thus reduce the effect sought.

These defects are accentuated with outdoor installations, such as signs or inscriptions, by the effect of rain or moisture, which has the effect of making the backgrounds brilliant and reflective, even if the precaution has been taken of giving them a matt surface or coating.

The present invention has for its object to limit the illumination available to the object to be shown, by leaving the backgrounds in apparently complete darkness, due to the absorption of the luminous rays striking it, by means of the arrangement hereinafter described with reference to the annexed drawing which shows a section of such an arrangement and in which:

The object A is illuminated by one or more luminous sources B completed or not by one or more projectors C. The background D is formed of a number of laminae or plates E disposed in such manner that they can not receive on their face visible to a spectator at F any ray coming from the luminous source B.

For this purpose, if these laminae or plates E are plane, it is necessary and sufficient that their plane should pass through a point G disposed between the luminous source B and the eye of the spectator F; thus, the faces of the plates visible to the spectator in the totality of his visual angle α remain in the dark and the luminous rays emanating from the source B only strike the parts invisible to

the spectator. Thus the background appears absolutely dark.

These plates can be plane or curved, parallel to one another or not, and their dimensions are calculated according to the distance of the luminous sources; they can be fixed or movable, simply interconnected or fixed to a solid base or to a lattice according to the effects to be obtained; their number is variable according to the dimensions of the object to be thrown into relief and can be increased or reduced to the point where the background is formed of a single plate suitably disposed and profiled.

They may be formed of any material, either mounted separately, or formed integral with the background, which may be moulded, beaten, hollowed out or worked in any other way to obtain either recessed or in relief identical sheets or plates giving the same result namely that any part of the said background visible to the spectator cannot receive direct rays from luminous sources.

It is to be noted that in general the luminous sources being disposed above the objects to be shown, the effect here sought particularly for illuminating effects is also obtained for the same reasons in daylight by absorption of the rays of natural light.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is:—

An arrangement for giving an entirely dark appearance to backgrounds serving to show objects illuminated by artificial or natural sources of light, characterised by the use of one or more plates or sheets the face of which visible to the spectator is disposed in such manner that it does not receive rays direct from the sources of light.

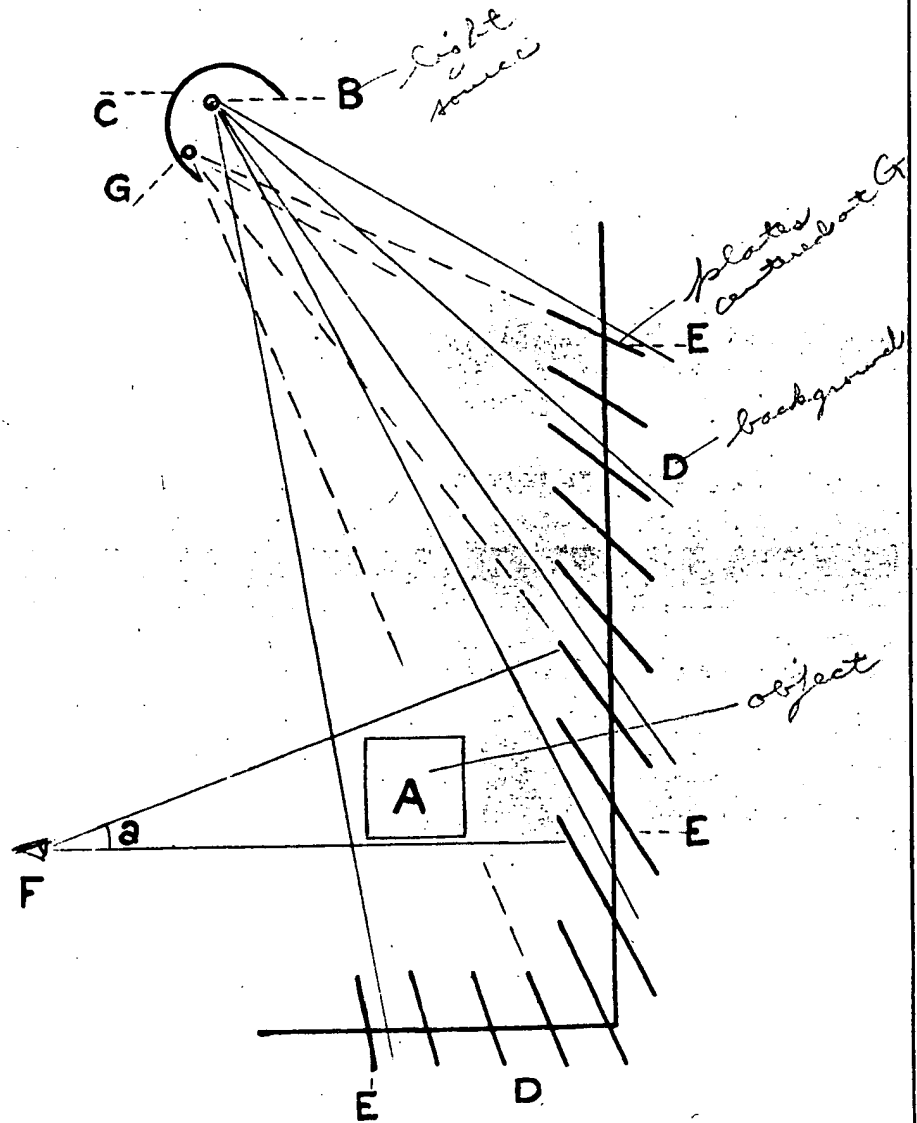
Dated this 28th day of July, 1933.

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GB 3414220
AUG 1934

1934

1 SHEET

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[This Drawing is a full-size reproduction of the Original.]

(Preventing light reflection from
a surface behind the object
being viewed.)